# Minutes
## U.S. Army Dugway Proving Ground
## Restoration Advisory Board Meeting
## Dugway Proving Ground – English Village
## Command Conference Room, Building 5450
## Monday, November 13, 2006
## 3:00 – 5:00 p.m.

*Attendees:* Lynn E. Appell, USACE; Vernon Denman, DPG resident; Jeff Carter, DP-EP; John Dalton, EPA; Keller Davis, Shaw E & I; Dave Fendt, Stansbury Park; Jeff Fitzmayer, Parsons; Joe Gearo, DP-EP; Dave Larsen, DSHW; Royce Larsen, DPG; Paula Nicholson, DPG PAO; R. Jason Reed, DP-EP; Scott Reed, DP-EP; Marianne Rutishauser, Tooele Co.; Harry Shinton, Toole Co. LEPC; Marc Sydow, USACE; Paul Zianno, USACE. Recorder: Carol Shelline, Shaw E & I.

*Welcome – Introductions:* Joe Gearo opened the meeting at 3:07 p.m. by welcoming all RAB members and guests. Each attendee then introduced themselves and identified their organization.

*Performance Based Contracting:* Scott Reed provided an overview of the current performance based contracting activities, highlighting the second task order award to Shaw E & I, Inc..

*Installation Restoration Program – Current Work Status and Updates:*

Shaw E & I, Inc. – Groundwater Monitoring – Keller Davis, Project Manager, reviewed the post closure monitoring activities since the last RAB meeting in August 2006. Prefacing his remarks concerning specific sites, he reported that sites closed with waste-in-place, commonly referred to as landfills, require groundwater management whether monitoring is required or not. He added, once a site is closed, there is specific monitoring and reporting requirements which are detailed in Dugway's RCRA Part B permit (Module VII). Groundwater requirements in 2006 include sampling at the following HWMUs:

(1) HWMU 2 involved the construction of a landfill cover in 2003. Post closure groundwater sampling is performed at the site biennially to analyze for metals, sulfate and total organic halides (TOX). The first sampling was done in 2004 and the second November 7, 2006.

(2) HWMU 43 is a 70 acre site south of English Village where a landfill cover was constructed in 2004 using the geosynthetic clay liner (GCL) for the first time. In 2005 erosion repairs and reseeding was required. Post closure groundwater monitoring is scheduled biennially with the first event planned for in December 2006. Analysis will be done for volatile organic compounds (VOC), total organic halides (TOX), total organic carbon (TOC), metals, nitrate/nitrites, and arsenic speciation. There is some debate as to whether the arsenic is naturally occurring or whether it was released.

(3) HWMU 128 was a mixing and storage facility for pesticides. It received a "risk based closure" in 2004 and Dugway was required to ensure that nothing be built on the site and that no one live on or near it. The land use must remain industrial.

One round of groundwater sampling was required and it occurred on November 9, 2006. The samples was analyzed for the following: volatile organic compounds (VOC), semi volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAHs), pesticides, and herbicides.

(4) Ditto Groundwater Management Area (GMA) – In the Ditto Groundwater Management Area Plan, high frequency water levels monitoring was prescribed. At this site it involves collecting water levels in five (5) wells spread across three (3) sites every 15 minutes for one year. The objectives of monitoring are to determine seasonal changes in the groundwater mound in Ditto and optimize future sampling times. Future sampling times will coincide with annual high and low water levels in part to determine if any contamination is leaching into the shallow water during the high point in the water table at Ditto. The water level data will also allow for a better understanding of the communication between the shallow and deeper groundwater intervals.

Performance Based Contracting – The following represent the performance based contracts (PBCs) received to date:

ACSIM-ID/IQ – This is a nationwide contract for the Army Chief of Staff for Installation Management and is an indefinite delivery / indefinite quantity contract.

(1) Task Order 002 (PBC I) – This TO is specific to Dugway with a scope to achieve site closure on 22 previously investigated sites. Details include:
- (a) 20 SWMU sites
- (b) 2 HWMU sites
- (c) Site types include waste piles, landfills, buildings, and test structures
- (d) The sites are divided into two (2) groups:
  - 13 closure-in-place landfills which require impermeable covers
  - 9 removal action sites – these are clean closures, not requiring covers
- (e) The 2006 execution strategy included:
  - focusing on closure-in-place landfills
  - assessing data needs to design / construct remedy (February 2006)
  - collecting geophysics and topographical survey data to refine the material quantities (April 2006)
  - finalizing designs and acquiring regulator approval (September 2006)
  - constructing remedies (November 2006)
  - preparing closure reports and post-closure plans (ongoing)
- (f) The 2007 execution strategy to focus on removal sites:
  - define site feature during investigation
  - excavate and remove waste as safety assessments indicate it is safe to do so
  - sample waste to determine disposal options
  - perform confirmation sampling in footprint of excavation
  - sample results used to demonstrate adequate removal

(2) Task Order 004 (also PBC II) – Another Dugway-specific TO to accomplish the closure of five (5) sites previously investigated.
   (a) 3 SWMU sites: DPG 180, 197, and 199
   (b) 2 HWMU sites: DPG 55 and 58
   (c) The site types include landfills, buildings, surface impoundment, and an open burn /open detonation (OB/OD) field
   (d) Complete remedy construction will be done in 2007
   (e) The 2007 execution strategy is as follows:
      - Two (2) closure-in-place landfills will be covered with GCL
      - one (1) surface impoundment will be decommissioned and filled
      - one (1) building foundation complex will be removed and the underlying soils characterized
      - One (1) OB/OD field with surface debris—ordnance, metal scrap and explosives, possibly TNT— will be cleaned and debris removed

Parsons -- RCRA Facility Investigation Sites – Jeff Fitzmayer, Geologist, provided an update of the RCRA facility investigation beginning with a review of the RCRA correction action process which included a definition of solid waste management units (SWMU):

*"Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released."*

He noted there are four main steps to the correction process:
(1) RCRA Facility Assessment (RFA)
(2) RCRA Facility Investigation (RFI) – Phase I
(3) RCRA Facility Investigation (RFI) – Phase II
(4) Corrective Measures Study (CMS)

The status of the various SWMUs under investigation are as follows:
(1) Priority I: there are 32 SWMUs in this category of which,
   (a) 21 have received DSHW approval of the RFI Reports. They are: SWMUs 3, 16, 17, 18, 21, 44, 52, 54, 65, 79, 98, 172, 194 (A, B, C), 199, 200, 212, 213, 215, and 207
   (b) The RFI Draft-Final Report has been submitted to the DSHW for SWMU-180
   (c) The RFI Draft Reports have been submitted to the Army for SWMU-41 and 177
   (d) A Draft RFI Report is being prepared for SWMU-60
   (e) Removal actions will be conducted on SWMU-35, 173, and 208
   (f) Additional investigative work is required on SWMU-4, 15, 32, and 192

(2) Priority II: there are 36 SWMUs that include the following:

(a) 23 RFI Final Reports have been approved by the DSHW. They are: SWMUs 6, 10, 23, 25, 56, 75, 77, 113, 115, 116, 118, 171, 179, 185, 188, 189, 193, 197, 205, 206, 211, 214, and 216
(b) There are five (5) RFI Final Reports currently being prepared
(c) An RFI Draft-Final has been submitted to the DSHW for SWMU-8
(d) Draft Reports are being prepared for SWMUs 11, 183, and 201
(e) There are four (4) SWMUs requiring additional work. They are: SWMUs 31, 114, 209, and 210

RFI Phase II work completed since August 2006 include the following:

(a) Prepared responses to the Army's comments on the draft Downrange Groundwater Management Area (GMA) plan (alternative groundwater monitoring plan).
(b) Five (5) RFI Reports were submitted to the Army or DSHW
(c) Draft-Final RFI Work Plans on SWMUs 192, 208, and 15 were submitted.
(d) A Draft RFI Work Plan was submitted for SWMU 180

Future field work includes

(1) Soil sampling at SWMUs 4, 31, 114, 192, and 210. SWMU-192 will likely be the first one completed
(2) Investigation of groundwater at SWMU 180
(3) Removal actions will take place at SWMUs 35, 173, 189 (versus cleanup), and 208

Future report activity will involve the following:

(1) Preparation of Final RFI Reports for SWMUs 61, 97, 133, 150, and 154
(2) Preparation of Draft RFI Reports for SWMUs 11, 60, 183, and 201
(3) Preparation of the Final Carr GMA and the Draft Final Downrange GMA reports
(4) Preparation of the draft English Village GMA report

Mr. Fitzmayer provided an overview of SWMU 192 and a brief history of the location. He noted that it is located west of Granite Mountain and consists of 61 backfilled trenches, each 120 feet long and 30 feet wide. It was used in 1968-69 for open burn demilitarization of 30,000 M-55 GB-filled (Sarin nerve agent) rockets. The trenches were re-excavated in 1976, and after further demilitarization, the rocket debris was moved to HWMU 9. Additional debris was sifted from the soil and removed. The trenches were backfilled and finally closed.

The RFI of SWMU 192 was begun in 1999 and to date, the following work has been done:

(1) A total of 137 soil-gas samples removed and tested
(2) A geophysics survey with magnetometer completed
(3) Collected 35 surface soil samples collected on trench surfaces and between trenches
(4) Completed test pit excavations in 29 of the trenches and as part of the process 56 subsurface soil samples were collected

(5) Eleven temporary monitoring wells were installed and sampled (depth to water approx. 15 feet) to determine if the groundwater was impacted

The sample results for SWMU 192 determined that

(1) there were no VOCs in the soil-gas samples,
(2) the geophysics survey found no significant ferrous metal anomalies,
(3) the soils contain ABPs (MPA), explosives (TNT and RDX), propellants (nitroglycerine), heavy metals (arsenic and cadmium), and PAHs (below regulatory thresholds )
(4) the groundwater contains low levels of VOCs, ABPs, and explosives

Future sampling needs at SWMU 192 include:

(1) test for PCBs from M-55 firing tubes and paint,
(2) test for dioxins from the incomplete burning of PCBs,
(3) test for perchlorate from M-55 igniters (1g/rocket). This is a recent "hot-button" environmental issue

An aerial view and pictures of the site were also included.

Dave Fendt asked what would be done with the soils that had ABP contamination. Jeff answered that remediation of the site was a long way off, but if remedial action was needed, a likely choice would be to cap the soils.

*Dugway IRP Website* -- Joe Gearo noted that there had been some problems in the past relative to the IRP website and getting RAB minutes and information posted. Effective this month, the Corps of Engineers (COE) website, administered through the Sacramento, California office will be available to post the RAB information. Along with Mr. Gearo, Lynn Appell and Paul Zianno from the COE spearheaded this effort. The website address will be added to any correspondence sent in the future. Marianne Rutishauser Andrus added that in accordance with the charter of the RAB, the website should be updated no later than six weeks after the meetings. All information posted regarding Dugway Proving Ground needs to be reviewed by Paula Nicholson, DPG Public Affairs. Information will then be forwarded to Paul Zianno and/or Lynn Appell for inclusion on the website.

Dave Fenton made the motion that the meeting documents be posted to the website as "draft" until they are approved (which for these minutes will be in the Spring of 2007). Vernon Denman seconded the motion. The motion was unanimously approved.

*Old Business* – Mr. Gearo commended Shaw E & I for their recent accomplishment of over 3,000 days of work completed without injuries or lost time. In recognition of their efforts dating back to 2002, the Shaw President's Safety Award was presented by Shaw senior staff at a recent luncheon honoring Shaw Dugway employees. Dugway personnel were also in attendance.

A motion was made to approve the minutes from the August 21, 2006 RAB meeting, Royce Larsen seconded the motion. The motion was unanimously approved.

*New Business* – Royce Larsen, DPG, recommended reading the article that was published today in the Deseret News about DPG and their cleanup efforts.

*Please note: Some dialogue during the Q&A may not have been captured in its entirety within these minutes. All stakeholders are encouraged to review the minutes for accuracy and provide feedback to either the Community or Installation Co-Chairs. The minutes will not be finalized until the next scheduled DPG RAB meeting on May 7, 2007.*

*Questions and Discussion*
John Dalton (EPA) wanted to know how much time a PBC will save contractors over the course of the remediation activities at Dugway. Keller Davis responded that Shaw saved a considerable amount of time by grouping like sites and remedies together into one plan. This saved review time, which saved money. In the time it would take to review and approve one site, twelve sites got approved. Dave Larsen concurred that from the regulators point of view it is a much faster process.

*Next Meeting* – Date/Time/Location: Monday, May 7, 2007, 3:00 – 5:00 p.m., Tooele
Please submit agenda topics to Keller Davis no later than Wednesday, April 25, 2007.

Agenda for next meeting to include review of RAB Charter for membership term limits.

The meeting adjourned at 4:49 p.m.

Attachments: Shaw E & I, Inc. presentation slides
Parsons RFI and Carr GMA presentation slides